

CLAIMS

1. A method comprising:
determining at least one of a sensing function or a control function at a mote; and
creating one or more mote-addressed content indexes in response to said
determining.
2. The method of Claim 1, wherein said determining at least one of a sensing
function or a control function at a mote further comprises:
accessing at least one device entity registry.
3. The method of Claim 1, wherein said determining at least one of a sensing
function or a control function at a mote further comprises:
communicating with at least one device-associated entity.
4. The method of Claim 3, wherein said communicating with at least one device-
associated entity further comprises:
communicating with at least one of a light device entity, an electrical device
entity, a pressure device entity, a temperature device entity, a volume device entity, an
inertial device entity, or an antenna entity.
5. The method of Claim 3, wherein said communicating with at least one device-
associated entity further comprises:
accessing at least one device identifier of a mote-addressed content index.
6. The method of Claim 1, wherein said determining at least one of a sensing
function or a control function at a mote further comprises:
communicating with at least one device entity using a common application
protocol.

7. The method of Claim 1, wherein said creating one or more mote-addressed content indexes in response to said determining further comprises:

creating at least one extensible index.

8. The method of Claim 7, wherein said creating at least one extensible index further comprises:

creating the at least one extensible index in response to a type of content indexed.

9. The method of Claim 1, wherein said creating one or more mote-addressed content indexes in response to said determining further comprises:

creating at least one of a mote-addressed sensing index or a mote-addressed control index.

10. The method of Claim 1, wherein said creating one or more mote-addressed content indexes in response to said determining further comprises:

creating at least one of a mote-addressed routing/spatial index.

11. The method of Claim 1, wherein said creating one or more mote-addressed content indexes in response to said determining further comprises:

inserting at least one device identifier in the one or more mote-addressed content indexes.

12. The method of Claim 1, wherein said creating one or more mote-addressed content indexes in response to said determining further comprises:

establishing an index-creating agent at the mote;

determining a mote-network address of the mote; and

associating at least one of a mote-addressed sensing index, a mote-addressed control index, or a mote-addressed routing/spatial index with the mote-network address of the mote.

13. The method of Claim 1, wherein said creating one or more mote-addressed content indexes in response to said determining further comprises:

migrating to the mote;

installing an index creation agent at the mote; and

querying at least one device entity with the index creation agent.

14. The method of Claim 1, wherein said creating one or more mote-addressed content indexes in response to said determining further comprises:

determining a mote-network address of the mote;

determining one or more types of control available from one or more devices of the mote; and

associating the one or more types of control available from one or more devices of the mote with the mote-network address of the mote.

15. The method of Claim 1, wherein said creating one or more mote-addressed content indexes in response to said determining further comprises:

determining a mote-network address of the mote;

determining one or more types of sensing available from one or more devices of the mote; and

associating the one or more types of sensing available from one or more devices of the mote with the mote-network address of the mote.

16. The method of Claim 1, wherein said creating one or more mote-addressed content indexes in response to said determining further comprises:

determining a mote-network address of the mote;

determining one or more types of spatial information related to devices of or proximate to the mote; and

associating the one or more types of spatial information related to devices of or proximate to the mote with the mote-network address of the mote.

17. The method of Claim 1, wherein said creating one or more mote-addressed content indexes in response to said determining further comprises:

- determining a mote-network address of the mote;
- determining one or more types of absolute or relative spatial information of other motes proximate to the mote; and
- associating the one or more types of absolute or relative spatial information of other motes proximate to the mote with the mote-network address of the mote.

18. The method of Claim 1, wherein said creating one or more mote-addressed content indexes in response to said determining further comprises:

- associating one or more mote-appropriate routing addresses with the one or more mote-addressed content indexes.

19. The method of Claim 1, wherein said creating one or more mote-addressed content indexes in response to said determining further comprises:

- associating one or more mote-appropriate routing addresses with at least one directly mote-addressed content index.

20. The method of Claim 1, wherein said creating one or more mote-addressed content indexes in response to said determining further comprises:

- associating one or more mote-appropriate routing addresses with at least one indirectly mote-addressed content index.

21. A system comprising:
means for determining at least one of a sensing function or a control function at a mote; and
means for creating one or more mote-addressed content indexes in response to said determining.

22. The system of Claim 21, wherein said means for determining at least one of a sensing function or a control function at a mote further comprises:
accessing at least one device entity registry.

23. The system of Claim 21, wherein said means for determining at least one of a sensing function or a control function at a mote further comprises:
means for communicating with at least one device-associated entity.

24. The system of Claim 23, wherein said means for communicating with at least one device-associated entity further comprises:
means for communicating with at least one of a light device entity, an electrical device entity, a pressure device entity, a temperature device entity, a volume device entity, an inertial device entity, or an antenna entity.

25. The system of Claim 23, wherein said means for communicating with at least one device-associated entity further comprises:
means for accessing at least one device identifier of a mote-addressed content index.

26. The system of Claim 21, wherein said means for determining at least one of a sensing function or a control function at a mote further comprises:
means for communicating with at least one device entity using a common application protocol.

27. The system of Claim 21, wherein said means for creating one or more mote-addressed content indexes in response to said determining further comprises:
means for creating at least one extensible index.

28. The method of Claim 27, wherein said means for creating at least one extensible index further comprises:
means for creating the at least one extensible index in response to a type of content indexed.

29. The system of Claim 21, wherein said means for creating one or more mote-addressed content indexes in response to said determining further comprises:
means for creating at least one of a mote-addressed sensing index or a mote-addressed control index.

30. The system of Claim 21, wherein said means for creating one or more mote-addressed content indexes in response to said determining further comprises:
means for creating at least one of a mote-addressed routing/spatial index.

31. The system of Claim 21, wherein said means for creating one or more mote-addressed content indexes in response to said determining further comprises:
means for inserting at least one device identifier in the one or more mote-addressed content indexes.

32. The system of Claim 21, wherein said means for creating one or more mote-addressed content indexes in response to said determining further comprises:
means for establishing an index-creating agent at the mote;
means for determining a mote-network address of the mote; and
means for associating at least one of a mote-addressed sensing index, a mote-addressed control index, or a mote-addressed routing/spatial index with the mote-network address of the mote.

33. The system of Claim 21, wherein said means for creating one or more mote-addressed content indexes in response to said determining further comprises:

means for migrating to the mote;

means for installing an index creation agent at the mote; and

means for querying at least one device entity with the index creation agent.

34. The system of Claim 21, wherein said means for creating one or more mote-addressed content indexes in response to said determining further comprises:

means for determining a mote-network address of the mote;

means for determining one or more types of control available from one or more devices of the mote; and

means for associating the one or more types of control available from one or more devices of the mote with the mote-network address of the mote.

35. The system of Claim 21, wherein said means for creating one or more mote-addressed content indexes in response to said determining further comprises:

means for determining a mote-network address of the mote;

means for determining one or more types of sensing available from one or more devices of the mote; and

means for associating the one or more types of sensing available from one or more devices of the mote with the mote-network address of the mote.

36. The system of Claim 21, wherein said means for creating one or more mote-addressed content indexes in response to said determining further comprises:

means for determining a mote-network address of the mote;

means for determining one or more types of spatial information related to devices of or proximate to the mote; and

means for associating the one or more types of spatial information related to devices of or proximate to the mote with the mote-network address of the mote.

37. The system of Claim 21, wherein said means for creating one or more mote-addressed content indexes in response to said determining further comprises:

means for determining a mote-network address of the mote;

means for determining one or more types of absolute or relative spatial information of other motes proximate to the mote; and

means for associating the one or more types of absolute or relative spatial information of other motes proximate to the mote with the mote-network address of the mote.

38. The system of Claim 21, wherein said means for creating one or more mote-addressed content indexes in response to said determining further comprises:

means for associating one or more mote-appropriate routing addresses with the one or more mote-addressed content indexes.

39. The system of Claim 21, wherein said means for creating one or more mote-addressed content indexes in response to said determining further comprises:

means for associating one or more mote-appropriate routing addresses with at least one directly mote-addressed content index.

40. The system of Claim 21, wherein said means for creating one or more mote-addressed content indexes in response to said determining further comprises:

means for associating one or more mote-appropriate routing addresses with at least one indirectly mote-addressed content index.

41. A system comprising:
at least one mote-appropriate device; and
at least one index creation agent resident in a mote, said at least one index creation agent configured to create at least one of a sensing index, a control index, or a routing/spatial index.

42. The system of Claim 41, wherein said at least one mote-appropriate device further comprises:

at least one of a light device, an electrical/magnetic device, a pressure device, a temperature device, a volume device, an inertial device, or an antenna.

43. The system of Claim 41, wherein said at least one index creation agent resident in a mote further comprises:

a processor configured to obtain at least one of a sensing function, a control function, or routing/spatial information of the mote.

44. The system of Claim 41, wherein the mote comprises:

at least one of a processor, a memory, or a communications device formed from a substrate.

45. A system comprising:
at least one mote-appropriate device; and
a mote-addressed content index having at least one of a sensing function, a control function, or routing/spatial information of said at least one mote-appropriate device.